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Into the Woods

An environmental learning center—nestled into a rustic 250-acre nature preserve—plays a dual role as symbol and teaching tool.

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ISLAND WOOD
Bainbridge Island, Washington
Client: Debbi Brainerd
Architect: Mithun

I'm walking with ten fourth-graders around Island Wood, a six-acre environmental learning-center campus built carefully, almost apologetically, into a 255-acre nature preserve on Bainbridge Island, Washington. At the moment we're in the "educational studios" building, which is replete with green features designed both to demonstrate architectural environmentalism and to elicit kids' questions and interest. A little girl emerges from the restroom, which has composting toilets, and says to her friend:

"Go in there and sit down!"

"Why?"

"Because this funny air comes up and hits your butt—it's really weird!"

And there you have what Island Wood's director of education, Pat Guild O'Rourke, likes to call "the experiential approach to education that we want to employ here." Given the age of Island Wood's clients—9, 10, and 11—demonstrations of environmentalism that catch you by surprise are a tad more effective than lectures or classroom sessions. "We don't preach at them about some of the sophisticated architecture—we just make it obvious so they'll ask questions," she adds.

It's clear that the kids are unenthusiastic, even fearful, at the prospect of going into detail about the composting toilets. When a group of them is led down an outdoor staircase to see the composting operation beneath the restroom, they move hesitantly, several of them holding their noses. But the room is pristine and odor-free, even when the instructor raises the lid on the compost bin to reveal what looks like dark, dry sawdust.

"No, no, no way! Impossible! I don't believe you!"

“Can you two go upstairs and throw some wadded-up paper down the toilet so he can see?”

And so goes the raising of environmental consciousness, one child at a time.

Island Wood was first dreamed up in 1997, when Seattle’s Debbi Brainerd started thinking about how to address two apparently unrelated problems: environmental degradation and shortfalls in inner-city education. In 1998 she and her husband, Paul, purchased a parcel of undeveloped land on Bainbridge—a 35-minute ferry ride from Seattle—and started planning to make spectacular, harmless use of their acquisition.

The land, previously owned by the Port Blakely Tree Farms, was logged in the nineteenth century, is now covered with second-growth forest, and features—among other natural wonders—a pond, a bog, a marsh, an estuary, a deep ravine, and a harbor. The Brainerds started planning to build there; Debbi spent the next two years consulting with experts before beginning Island Wood’s two-year construction project. Now in its sixth year of operation, the learning center is as close to invisible as you can make a six-acre, 18-building campus, along with various other structures (tree houses, a bird blind, a helter, a greenhouse, a suspension footbridge) out in the woods. Some of the buildings are situated to hide them from one another, and all of the buildings are made of materials that so closely match the hues of their natural surroundings that they serve as camouflage.

Island Wood brings in children and teachers from inner-city schools and hosts them for the better part of a week, giving them intense, hands-on outdoor science education and indoor exposure to “green” architecture. Island Wood was Washington State’s first LEED Gold project, and the buildings’ interiors look, at first blush, decidedly odd to city kids. Their walls are all glass and unadorned wood; so natural is this interior that there are rooms where you do a double-take, trying to distinguish the room you’re in from the outdoors viewed through the window. In some places patterns on a wall made from recycled wood chips and chunks match the riotous random pattern of the ferns, salal, tree trunks, and forest-floor detritus visible outside.

A given piece of furniture—crafted out of a log or featuring spindles made from unfinished tree - branches—looks more or less like the tree parts outside, just a few feet away.

“Is that real? It’s plastic, right?”

“We really tried to make the learning something kids experience,” O’Rourke says. “We try to model for the kids. It’s great fun when they are surprised by something.”

“How come all the windows are on one side?”

“Someone asked Dr. Seuss one time, ‘Why do you write about things that are out of whack?’” says Clancy Wolf, Island Wood’s technology coordinator. “And that’s one of the really neat things about these buildings: they’re in a sense out of whack. So when something doesn’t sit right with the way kids are used to, they’re going to check their assumptions.”

“How come the roof’s upside down?”

“Like when kids get outside and look back here,” Wolf continues, “they see this butterfly roof instead of a normal one with the peak in the middle. One side of the roof is designed to have solar gain, and we want high windows facing south so we can get passive solar heat, and the roof butterflies there so we can capture the water right down the middle, pour it into that cistern. Kids see that kind of stuff and ask about it.”

Island Wood's architecture, then, is didactic. Mithun project lead David Goldberg calls the structures "a textbook." The buildings are a meta-environment: they're not only sustainable, they're about being sustainable. There doesn't seem to be any element to the architecture that isn't making a statement about itself.

Island Wood's Welcome Center—a large, spacious room—features a 97-foot beam, hewn from old-growth timber 150 years ago by the old mill, suspended from the ceiling in tandem with a replica of one of the mill's massive saw blades. The eye-catching display is designed to deliver a history lesson. You watch shoeless fourth-graders sliding giddily across the concrete floor in their socks under this arrangement and you're reminded of children's stories for adults: the genre that appeals to kids while offering a deeper message accessible only to their elders.

"Every year," O'Rourke says, "we have at least two or three graduate students [Island Wood employs graduate students as instructors and teaches graduate-level classes on environmentalism] who come primarily because they can't believe all the sustainable elements we have in one place here." Among these elements is everything from photovoltaic roof panels to a rainwater-capture apparatus and a greenhouse, called the Living Machine, packed with plants that filter Island Wood's gray water for reuse.

Mithun design principal Elizabeth MacPherson credits the environmentalism to "Debbi's vision." Brainerd says that Mithun "presented this idea to me, and it made so much sense—that there was an opportunity here far beyond what I ever imagined in the beginning to design this notion of sustainable visual elements in all aspects of the campus." She was concerned at first about the high costs, "but we determined that we could integrate all of the green pieces we wanted by taking out things that you would find in a traditional building to offset the price. In the end our cost per square foot was $194, compared to schools being built here at the same time, which were around $235 per square foot. So our cost was really low, and most of that was just trade-off: if you walk around our buildings, especially if you're in these big areas, we don't have any lowered ceilings or paint…we've left things sort of raw. And we have radiant-floor heat, which will save us money in the long run."

"Hey, the floor's warm!"

The effect is not austere: the buildings have a comfortable feel that seems deliberately designed rather than settled for. "When I went to interior-design school," MacPherson says, "it was a lot about layers and layers and layers of stuff. That somehow made for lovely places, but what we're finding is that the more closely we can tie our environment to nature, the more comfortable we feel. So if we're able to expose and show how something is built—just show what it's made of and its function—why not?"

"A lot of the sustainable stuff," says Claire Colegrove, an intern camp instructor at Island Wood last summer, "is over the kids' heads. But they love the lodges, and especially"—she sighs in exasperation—"the slippy floors."

Children come into the lodges at the end of the day and run to their rooms as if they've been living there for months. Then they spend their time before dinner running up and down the hallways, sliding in their socks—the floors, which are mostly a mix of concrete and fly ash, are ideally slippery and sliver-free. "They love the bunk beds," she adds, "and they really like the 'Great Room,' with the fireplace and the couch and everything. Sometimes at night, when kids would feel a little homesick, they'd come out there and cuddle up on the couch and listen to stories or just sit there with you by the fireplace." (Each of Island Wood's five fireplaces, MacPherson points out, "represents a different time period in the geologic history of the Cascade Mountains"—another

story there for the telling.)

"There's not a lot of other stuff here—we can't watch TV, we can't play any video games."

"But we're still having fun."

"The center," Brainerd says, "is primarily for inner-city kids who don't have an opportunity to connect with the natural world. And when kids are uncomfortable, they're not open to learning. So we wanted them to be as comfortable here as possible."

To that end she set about making sure that kids were foremost in everyone's mind from the beginning. When choosing an architect, the make-or-break interview question turned out to be, "How do you see involving children in the design process?" The answer of one finalist was a "pregnant pause," Brainerd recalls. "But at Mithun there was this fellow [David Goldberg] who practically jumped across the table and said, 'Oh, gosh, we'll go into the classroom, do design charrettes, we'll take in things they can build models with!' He was so excited about getting kids involved in the design process that I just thought, 'This is the team I need to work with.'"

Joining forces with Julie Johnson, an associate professor at the University of Washington's department of landscape architecture, Brainerd and Goldberg ran design charrettes with some 250 fourth-, fifth-, and sixth-graders over six months. The kids built models, answered questions, and drew ideal spaces. "A lot of what they came up with you would think was obvious," Brainerd says. "But there were other ideas that I probably never would have guessed. One kid said to me, 'I don't want to wake up and see the other buildings.' What they were showing us in their drawings were these little windows in their bunk rooms. They wanted to see the trees from their bed. The other piece we gleaned from this was that the lodges should not be built where the other buildings on the campus were. So that's why they're out in the woods."

The lodges do indeed look like a kid's fantasy—imagine Disneyland designed by Davy Crockett. Each room has two sets of bunk beds, each bed with an LED night-light inset in the wall beside it and a small square window in the wall over the pillow looking outside. (There is a Murphy bed in one wall of each room to accommodate larger groups.) Off of every room is a toilet-sink-shower arrangement with the sink in the middle and the toilet and shower on either side, each in its own little room with a door. (The showerhead is installed at kid's height—sternum level for an adult.)

"I had two little girls come up to me at the end of a charrette," Brainerd says, "and they whispered, 'You know, we never took a shower the whole week we were away at camp.' And when I asked them why, they sort of looked at each other, embarrassed, and then one of them said, 'We didn't want anyone to see us without our clothes on.' So I asked them, 'Well, how could we design some showers that we could use so you would like to come to camp again?' And they gave me a drawing that showed me a layout for a shower room. It was just a very simple situation—you saw the results—where you had a door that you could close and a bench and a shower and a place to hang your things, hooks on the wall to hang your clothes."

The guests at Island Wood are invariably appreciative. Particularly moving for Colegrove was the week she spent with a group of children from Seattle's Atlantic Street Center, a facility for poor and otherwise disadvantaged children. A donor had arranged for all the kids to be outfitted with new outdoor clothing and given a week at Island Wood. "They'd never been in the woods before," Colegrove recalls. "They freaked out at first. It was so hard for them, being outdoors. So the coziness and comfort in the lodges was really important."

“This is like staying in a hotel!”

In the final analysis the best line on Island Wood is delivered by carpenter and woodworker Floyd Luke, a longtime islander who helped build one of the center’s tree houses. “If God had money,” he says, “this is how He would’ve spent it.”